severe acute respiratory disease caused by pandemic influenza A H1N1 virus. A case series of hospitalized patients in Southeastern Brazil during the 2009 epidemic

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Background: During the pandemic influenza A H1N1 (FluAH1N1) period in 2009, it was observed a significant number of suspected cases presenting severe acute respiratory disease (SARD). In this context, all health care settings have adapted their structure — including infection control strategies, emergency and intensive care unities organization, treatment protocols — to increase their capacity of pandemic response. The main objective of this study is to describe the main clinical and epidemiological features of a case serie of severe acute respiratory disease caused by pandemic FluAH1n1 in a metropolitan region.

Methods: Retrospective and descriptive study based on information of medical records and epidemiological files of SARD hospitalized cases caused FluAH1N1 in 5 hospitals in the metropolitan region of Campinas, São Paulo State, during the first epidemic period in Brazil.

Results: Between July/6 and October/30 there were evaluated 254 cases of SARD; of them, 49 have been confirmed as FluAH1N1 infection (19.3%) and 14 (5,5%) as seasonal influenza strain. Of the 49 confirmed FluAH1N1 cases, 28 were female (57.1%) and the median age was 26 years (range: 0-75 years). The median time from onset of illness and hospital admission was 2 days (range, 1 to 5). Nine cases (18.3%) were admitted in intensive care unity and 5 (10.2%) required mechanical ventilation. The most important clinical features were fever and cough(98%), dyspnoea (77.5%), and malaise (83.6%). X-ray abnormalities were present in 75.5% of patients; leucocytes count was elevated in 5 (10.2%) and reduced in 6 (12.2%) patients. Pre-existing conditions were observed in 28 patients (55.1%); chronic respiratory disease (51.8%) and obesity (22.2%) were the most frequent underlying medical conditions. There were 4 deaths associated with FluAH1N1 (lethality 8.1%), one of them with simultaneous seasonal influenza strain virus infection.

Conclusion: As observed in other case series, it has been observed a higher frequency of SARD in female gender, younger adults, and in patients with underlying medical conditions. The relevance of FluAH1N1 cases, and the importance of seasonal influenza on morbidity and mortality annually and the importance of a continuous epidemiological and laboratorial surveillance of respiratory syndromes.

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Is the 2009 influenza A (H1N1) virus uncovering health disparities in Miami?

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Background: Since last April 2009 when the first cases of 2009 H1N1 influenza were diagnosed in the United States, the Miami-Dade County has been the hardest hit by this disease among Florida counties. This outbreak has also uncovered large disparities in the outcome of this disease among ethnic and racial groups in our community. Sixty-two percent of the 2,400,000 Miami-Dade County residents are of Hispanic origin, eighteen percent are Black Non-Hispanic, and White Non-Hispanic respectively. Among County residents, twentyeight percent have no health insurance, and seventeen percent live below the poverty level.

Methods: Information was retrieved from the enhanced public health surveillance database of Miami-Dade County residents who were hospitalized or died due to laboratory-confirmed 2009 H1N1 influenza infection reported to the Miami-Dade County Health Department between April 26th and November 30th, 2009.

Results: During this period, a total of 32 patients died, and 423 were admitted at Miami-Dade hospitals due to this disease. The hospitalization rate among Black Non-Hispanic residents (26.7 per 100,000) was more than three times higher than the one observed among White Non-Hispanics (7.3 per 100,000). Black Non-Hispanic residents (1.9 per 100,000) were more than twice likely to die due to this disease than Non-Hispanic Whites (0.7 per 100,000). Miami-Dade had more pronounced disparities among racial/ethnic groups than the ones observed in other areas of the State of Florida.

Conclusion: The current 2009 H1N1 influenza outbreak has hit more severely the minority population in Miami-Dade, underscoring the need to address the social and environmental factors leading to increasing health disparities observed on this community.

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Comparative evaluation of ARDS patients with and without H1N1 infection at a tertiary care referral center

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Background: The recent emergence of H1N1 as pandemic has raised concerns in its critical care management. The management in our ICU is primarily based on guidelines of sepsis and ARDS. So we compare our experience of Acute